

**What is EOQ?**

- Economic Order Quantity (EOQ) is an industry “best practice” for inventory ordering, distribution and management. EOQ is the Centers for Disease Control and Prevention (CDC) standard to more effectively manage the federal vaccine program nationwide.
- EOQ is much like Tiered Order Frequency (TOF), which we introduced in 2007 when we centralized vaccine distribution through McKesson. The goal of EOQ is to balance provider order size, order frequency, timing of orders, and improve inventory management.

“Order frequency” is how often an order is placed.

“Order timing” is what week during the month orders are placed.

“Order size” is the recommended order quantity based on order history, usage, and physical inventory.

- Like TOF, EOQ assigns order cycles based on the amount of vaccine shipped each year to each provider. Here are the new order cycles for EOQ:

Order Frequency	Doses Per Year CDC EOQ Standards
Monthly (high volume)	6,000 plus
Every 2 Months (medium volume)	800 – 5,999
Quarterly (low volume)	200 – 799
Every 6 Months (very low volume)	0 – 199

- EOQ assigns order timing, so some providers will order earlier in the month, and other providers will order later in the month.

**Does EOQ apply to all state supplied vaccine orders?**

- While EOQ applies to most VFC vaccines, it does not apply to seasonal influenza vaccine or vaccines with limited availability. Influenza vaccine can be ordered as needed within assigned allocations.
- We may exclude other vaccines as special circumstances arise (e.g. shortages and/or allocations). We’ll evaluate special circumstances on a case-by-case basis to determine whether EOQ considerations apply.

## **Economic Order Quantity Frequently Asked Questions**

### **Is participation mandatory?**

- Yes. All providers who order state supplied vaccine will be required to order according to their assigned order frequency, order timing, and recommended order quantity.

### **Why is EOQ being implemented?**

- Currently, there are inefficiencies in how providers place orders (e.g. incorrect quantities, multiple orders within a short period of time, order spikes in the beginning of the month, etc.).
- CDC expects there should be less time spent reviewing and processing orders allowing more time for activities that have a greater impact on public health.
- At the national level, there should be greater predictability in ordering resulting in overall inventory management improvements.
- Implementing EOQ may reduce total operating costs for the program by optimizing the frequency and volume of publicly funded vaccine shipments. EOQ works to balance these competing costs by looking at total costs to save taxpayer dollars.

### **How will EOQ help me?**

- Providers may receive their vaccine orders more quickly. Spreading orders across the state throughout the month helps to alleviate the spike of orders that McKesson currently experiences at the beginning of each month.
- Providers may be able to save time by creating larger, less frequent orders rather than a high volume of small orders.
- With EOQ, there are tools to help determine the right amount of vaccines to order, and how often and when to order. The tools will also help to determine if a provider has enough refrigerated storage capacity to hold their vaccine order.
- EOQ takes the guesswork out of determining how much of each vaccine is needed for a given order cycle. The EOQ tools may help save time and help providers feel more confident that they are ordering the right amount of vaccine. That way providers do not have to worry about vaccine wastage from ordering too much, or running out of vaccine from ordering too little.

## **Economic Order Quantity Frequently Asked Questions**

### **How will I know which order frequency and order timing window (first or second half of a specific month) has been assigned to me?**

- Each provider will receive an individualized calendar showing their EOQ frequency and timing assignments.
- If a provider does not have enough storage capacity to change to the new order schedule, we will work with them and their LHJ to ensure they can order frequently enough to meet their vaccine needs.

### **What will happen if I place an order outside of my assigned order schedule?**

- Off-schedule orders will be accepted. LHJs may contact providers to discuss off-schedule orders if appropriate exception reasons are not provided on the order form.
- Ordering behavior will be monitored at the state level and reports will be developed to track progress.
- The expectation is that if off-schedule ordering becomes a trend for a given provider, we'll work with the LHJ and provider to resolve the issue. This could mean additional training for the provider. If absolutely necessary, it may mean changing a provider's order schedule. Issues will be addressed on a case-by-case basis.

### **What if I run out of state supplied vaccine?**

- No matter when a provider is scheduled to order, they may place an order if they are in danger of running out of vaccine. EOQ tools are designed to help providers avoid running out of vaccines so this shouldn't happen very often.
- CDC recommends that providers keep a 30-day safety stock of vaccine to help ensure they do not run out. The 30-day safety stock is already built into the EOQ tools to help ensure that providers order the right amount of vaccine.

### **My practice is different from other practices. Will EOQ work for me?**

- We will work with the provider and their LHJ if special circumstances exist that may affect how frequently a provider can order. We will listen to provider concerns and make suggestions.

## Economic Order Quantity Frequently Asked Questions

### **With providers storing larger inventories won't there be more compromised/wasted vaccine?**

- According to the CDC, states that have already implemented EOQ are not experiencing greater percentages of wasted vaccine.
- Since most vaccines have expiration dates that are 1.5 to 2 years out, if providers are maintaining an appropriate amount of safety stock (i.e. not stockpiling), rotating stock with each new delivery, and monitoring expiration dates – all things they should already be doing – we should not see an increase in wasted vaccine.
- The vaccine management guidelines allow for LHJ-to-provider and provider-to-provider transfers of vaccine. Vaccine that is nearing the expiration date can be transferred from a smaller clinic to a larger clinic where it is more likely to be used prior to expiration.
- Providers and LHJs may need to monitor vaccine expiration dates more closely and may need to look further out into the future when evaluating potential expiration issues.

### **What tools are available to help with EOQ?**

- One tool is a Provider Order Calendar for each provider which shows the provider's order frequency and timing. Once a provider is assigned an order schedule, the calendar will show which months and weeks that provider is expected to place an order.
- Another tool is to help providers figure out how much vaccine to order based on order history, usage, and order frequency. Calculations are based on actual state-wide vaccine distribution and take into account the busiest, back-to-school period and other seasonal fluctuations (see Recommended Order Quantity Calculator section below for more information).
- There will also be ordering guidelines to make sure providers have enough safety stock on hand.
- A storage capacity worksheet for determining how much refrigerator/freezer space that is needed for different volumes of vaccine will also be available soon.

## **Economic Order Quantity Frequently Asked Questions**

### **How does the Recommended Order Quantity Calculator work?**

- The Recommended Order Quantity Calculator is a Microsoft Excel tool based on three years' worth of state-wide historical ordering data.
- Calculations include adjustments for seasonal fluctuations in vaccine volumes and include one month (30 days) of safety stock.
- When using the calculator, a provider chooses the order frequency and the ordering month so the tool includes the right months in the calculations.
- The recommended order quantity provided by this tool needs to be treated as a good starting place for figuring out how much vaccine to order. Each provider may need to adjust the order up or down to fit their clinics current needs.

### **Will the monthly accountability reports still be due each month?**

- Yes. Providers will still need to complete their monthly vaccine usage reports and send them to their LHJ. LHJs will continue to compile monthly accountability reports and send them into the state.
- The date accountability reports are submitted by providers can be adjusted to align with when the provider places their order.
- Providers ordering the first half of the month still need to report by the 5th and include data for the previous calendar month. Providers ordering the second half of the month need to report by the 20th and include data from the 15th of the previous month through the 15th of the current month.
- Larger LHJs may decide to submit two reports each month – one report for providers ordering the first half of the month, and a second report for providers ordering the second half of the month.
- We are working to get accountability reporting in the CHILD Profile Immunization Registry. When this is ready, we'll have electronic submission directly from the providers. Reports will then be accessible on-line for the LHJs and the state.

### **My LHJ serves as a depot for distributing vaccine to our smaller providers. Can we still continue to distribute vaccines this way?**

- We would prefer that LHJs not function as a depot for distributing vaccine. We encourage each provider's order to be submitted separately.
- Under certain circumstances, we have an allowance in the vaccine management guidelines for alternate delivery sites. Once approved by the LHJ and DOH, providers can place an order and have it delivered to the LHJ or another provider site for storage. The vaccine can then be transferred to the provider when it is needed.
- Alternate delivery sites will be evaluated and determined on a case by case basis.

## **Economic Order Quantity Frequently Asked Questions**

### **How will the CHILD Profile Immunization Registry support EOQ ordering schedules?**

- CHILD Profile is expected to be updated to support EOQ within the first quarter of 2011.
- The demographic portion of the Create Order screen will be updated to display each provider's assigned order frequency (how often to order), order timing (when during the month to order), and order schedule (which months to order).
- If an order is placed outside of the assigned schedule, a warning message will be displayed and an exception reason will be required to proceed with the order.
- Off-schedule orders will be accepted and when approved by the LHJ will be submitted for processing by the state.

### **How will the CHILD Profile Immunization Registry support EOQ recommended order quantities?**

- CHILD Profile is expected to be updated to support EOQ within the first quarter of 2011.
- The Order Details portion of the Create Order screen will be updated to display a recommended order quantity for each vaccine based on provider-specific data.
- For providers that manage their vaccine inventory within CHILD Profile (or through downloads from an external system), the recommended order quantity will be determined using actual inventory data.
- For providers who do not manage their vaccine inventory within CHILD Profile, the recommended order quantity will be determined using the Doses Used Last Month and Physical Inventory data entered when the order is being placed.
- If the actual Order Quantity is greater than or less than the Recommended Order Quantity by 15% or more, a warning message will be displayed and an exception reason will be required to proceed with the order.
- Orders outside the recommended order quantity will be accepted and when approved by the LHJ will be submitted for processing by the state.

### **How is EOQ related to Direct Provider Ordering in CHILD Profile?**

- EOQ and Direct Provider Ordering are two separate initiatives related to placing vaccine orders.
- EOQ has to do with how often vaccine orders are placed and how much vaccine is ordered.
- Direct Provider Ordering has to do with how the vaccine order is placed.
- Most providers submit a paper order form to their LHJ and the LHJ enters and approves the order in CHILD Profile. With Direct Provider Ordering, the provider will enter the order directly into CHILD Profile where it will be reviewed and approved by the LHJ.

## **Economic Order Quantity Frequently Asked Questions**

- We know there will be some providers that may never use CHILD Profile (e.g. those without internet access). The expectation is that as many providers as is possible will enter their own orders in CHILD Profile. For the remainder, LHJs will continue to enter orders from the paper form.
- The EOQ and Direct Provider Ordering initiatives are both scheduled to implement in 2011, however, they do not need to be implemented at the same time.

If you still have unanswered questions, please contact your local health jurisdiction or Karen Meranda at: [Karen.Meranda@doh.wa.gov](mailto:Karen.Meranda@doh.wa.gov) or 360-236-3553.